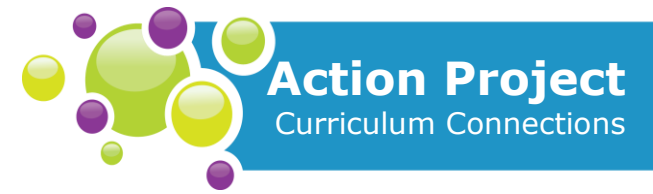


# Living Space

Curriculum Connections: British Columbia

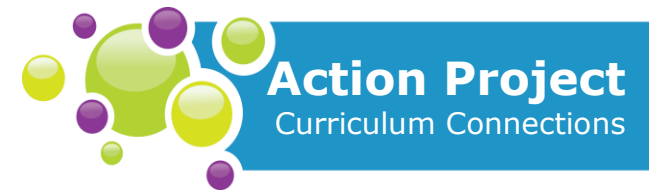


Gr.	Course	Big Idea	Lesson	Competencies/Content
6	<a href="#">Science Grade 6 (2016)</a>	The solar system is part of the Milky Way, which is one of billions of galaxies.	MINDS-ON 1, 2	<p>The position, motion, and components of our solar system in our galaxy</p> <ul style="list-style-type: none"> <li>extreme environments including contributions of Canadians to exploration technologies (e.g., Canadarm, Newt Suit, VENUS and NEPTUNE programs)</li> </ul>
			MINDS-ON 1, 2, 3	<p>Planning and conducting</p> <ul style="list-style-type: none"> <li>Use equipment and materials safely, identifying potential risks</li> </ul>
			ACTION 1, 2	<p>Questioning and predicting</p> <ul style="list-style-type: none"> <li>Demonstrate a sustained curiosity about a scientific topic or problem of personal interest</li> <li>Make observations in familiar or unfamiliar contexts</li> <li>Identify questions to answer or problems to solve through scientific inquiry</li> </ul>
			ACTION 1, 2	<p>Planning and conducting</p> <ul style="list-style-type: none"> <li>With support, plan appropriate investigations to answer their questions or solve problems they have identified</li> <li>Choose appropriate data to collect to answer their questions</li> <li>Observe, measure, and record data, using appropriate tools, including digital technologies</li> <li>Use equipment and materials safely, identifying potential risks</li> </ul>
			ACTION 1, 2	<p>Processing and analyzing data and information</p> <ul style="list-style-type: none"> <li>Construct and use a variety of methods, including tables, graphs, and digital technologies, as appropriate, to represent patterns or relationships in data</li> <li>Identify patterns and connections in data</li> </ul>
			ACTION 1, 2	<p>Applying and innovating</p> <ul style="list-style-type: none"> <li>Contribute to care for self, others, and community through personal or collaborative approaches</li> <li>Co-operatively design projects</li> <li>Transfer and apply learning to new situations</li> <li>Generate and introduce new or refined ideas when problem solving</li> </ul>



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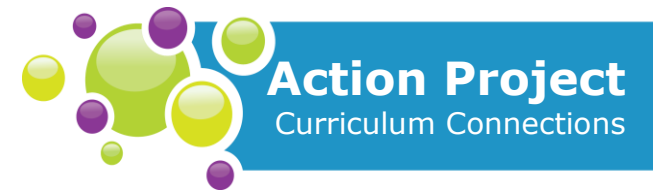
## Curriculum Connections: British Columbia



			ALL	<b>Communicating</b> <ul style="list-style-type: none"> <li>Communicate ideas, explanations, and processes in a variety of ways</li> </ul>
6	<a href="#">Mathematics Grade 6 (2016)</a>	Data from the results of an experiment can be used to predict the theoretical probability of an event and to compare and interpret.	ACTION 1, 2	<b>line graphs:</b> <ul style="list-style-type: none"> <li>table of values, data set; creating and interpreting a line graph from a given set of data</li> </ul>
6/7	<a href="#">Applied Design, Skills, and Technologies 6/7 (2016)</a>	Complex tasks may require multiple tools and technologies.	MINDS-ON 1, 2, 3	<b>simple algorithms that reflect computational thinking</b> <ul style="list-style-type: none"> <li>for sorting, searching, sequence, selection, and repetition; specific statements to complete a simple task;</li> </ul>
			ACTION 1, 2	<b>visual representations of problems and data</b> <ul style="list-style-type: none"> <li>graphs, charts, network diagrams, info graphics, flow charts, lists, tables, or arrays</li> </ul>
			MINDS-ON 1, 2, 3	<b>visual programming</b> <ul style="list-style-type: none"> <li>for example, Kodu, Scratch</li> </ul>
			CONSOLIDATION	<b>visual programming</b> <ul style="list-style-type: none"> <li>for example, Kodu, Scratch</li> </ul>
8	<a href="#">Applied Design, Skills, and Technologies 8 (2016)</a>	Complex tasks may require multiple tools and technologies.	MINDS-ON 1, 2, 3	<b>Computational Thinking</b> <ul style="list-style-type: none"> <li>software programs as specific and sequential instructions with algorithms that can be reliably repeated by others</li> <li>debugging algorithms and programs by breaking problems down into a series of sub-problems</li> </ul>
			MINDS-ON 1, 2, 3	<b>programming languages, including visual programming</b> <ul style="list-style-type: none"> <li>for example, Scratch, Alice, Greenfoot, BlueJ</li> </ul>
			ACTION 1, 2	<b>programming modular components</b> <ul style="list-style-type: none"> <li>for example, Arduino, LEGO Mindstorms</li> </ul>
			CONSOLIDATION	<b>programming languages, including visual programming</b> <ul style="list-style-type: none"> <li>for example, Scratch, Alice, Greenfoot, BlueJ</li> </ul>

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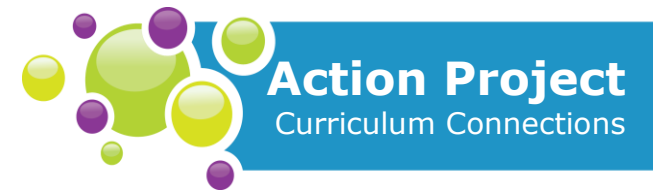
## Curriculum Connections: British Columbia



8	<a href="#">Mathematics Grade 8 (2016)</a>	Analyzing <b>data</b> by determining averages is one way to make sense of large data sets and enables us to compare and interpret.	ACTION 1, 2	<p><b>central tendency:</b></p> <ul style="list-style-type: none"> <li>o mean, median, and mode</li> </ul>
9	<a href="#">Mathematics Grade 9 (2016)</a>	Analyzing the validity, reliability, and representation of <b>data</b> enables us to compare and interpret.	ACTION 1, 2	<p><b>Statistics:</b></p> <ul style="list-style-type: none"> <li>• population versus sample, bias, ethics, sampling techniques, misleading stats</li> <li>• analyzing a given set of data (and/or its representation) and identifying potential problems related to bias, use of language, ethics, cost, time and timing, privacy, or cultural sensitivity</li> </ul>
10	<a href="#">Computer Studies 10 (2018)</a>	Complex tasks require different technologies and tools at different stages.	MINDS-ON 1, 2, 3	<ul style="list-style-type: none"> <li>• introductory computer programming concepts and constructs</li> </ul>
			MINDS-ON 1, 2, 3	<ul style="list-style-type: none"> <li>• planning and writing simple programs, including games</li> </ul>
			CONSOLIDATION	<ul style="list-style-type: none"> <li>• planning and writing simple programs, including games</li> </ul>
			ALL	<ul style="list-style-type: none"> <li>• • principles of computational thinking</li> </ul>
11	<a href="#">Science Grade 11: Earth Sciences (2018)</a>	Astronomy seeks to explain the origin and interactions of Earth and its solar system.	MINDS-ON 1, 2	<ul style="list-style-type: none"> <li>• application of space technologies to the study of changes in Earth and its systems</li> </ul>
			MINDS-ON 1, 2	<p><b>Applying and innovating</b></p> <ul style="list-style-type: none"> <li>• Consider the role of scientists in innovation</li> </ul>
			MINDS-ON 3	<p><b>Planning and conducting</b></p> <ul style="list-style-type: none"> <li>• • Use appropriate SI units and appropriate equipment, including digital technologies, to systematically and accurately collect and record data</li> </ul>
			ACTION 1, 2	<ul style="list-style-type: none"> <li>• <b>Planning and conducting</b></li> <li>• Collaboratively and individually plan, select, and use appropriate investigation methods, including field work and lab experiments, to collect reliable data (qualitative and quantitative)</li> <li>• Use appropriate SI units and appropriate equipment, including digital technologies, to systematically and accurately collect and record data</li> <li>• Apply the concepts of accuracy and precision to experimental procedures and data</li> </ul>

# Living Space

## Curriculum Connections: British Columbia

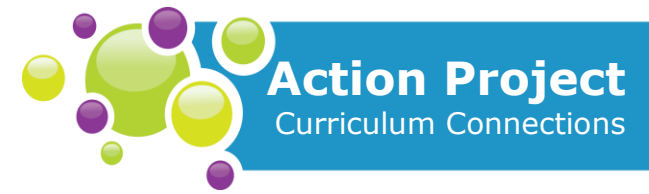


			<p><b>ACTION 1, 2</b></p> <p><b>Processing and analyzing data and information</b></p> <ul style="list-style-type: none"> <li>• Seek and analyze patterns, trends, and connections in data, including describing relationships between variables, performing calculations, and identifying inconsistencies</li> <li>• Construct, analyze, and interpret graphs, models, and/or diagrams</li> <li>• Use knowledge of scientific concepts to draw conclusions that are consistent with evidence</li> <li>• Analyze cause-and-effect relationships</li> </ul>
			<p><b>ACTION 2</b></p> <p><b>Communicating</b></p> <ul style="list-style-type: none"> <li>• Communicate scientific ideas and information, and perhaps a suggested course of action, for a specific purpose and audience, constructing evidence-based arguments and using appropriate scientific language, conventions, and representations</li> </ul>
			<p><b>ACTION 2</b></p> <p><b>Applying and innovating</b></p> <ul style="list-style-type: none"> <li>• Contribute to care for self, others, community, and world through individual or collaborative approaches</li> <li>• Contribute to finding solutions to problems at a local and/or global level through inquiry</li> <li>• Implement multiple strategies to solve problems in real-life, applied, and conceptual situations</li> </ul>
11	<a href="#">Science Grade 11: Science for Citizens (2018)</a>	Scientific processes and knowledge inform our decisions and impact our daily lives.	<p><b>MINDS-ON 1, 2</b></p> <ul style="list-style-type: none"> <li>• Natural hazards and responses</li> </ul>
			<p><b>MINDS-ON 1, 2</b></p> <p><b>Applying and innovating</b></p> <ul style="list-style-type: none"> <li>• Consider the role of scientists in innovation</li> </ul>
			<p><b>MINDS-ON 3</b></p> <p><b>Planning and conducting</b></p> <ul style="list-style-type: none"> <li>• Use appropriate SI units and appropriate equipment, including digital technologies, to systematically and accurately collect and record data</li> </ul>
			<p><b>ACTION 1, 2</b></p> <p><b>Planning and conducting</b></p> <ul style="list-style-type: none"> <li>• Collaboratively and individually plan, select, and use appropriate investigation methods, including field work and lab experiments, to collect reliable data (qualitative and quantitative)</li> <li>• Use appropriate SI units and appropriate equipment, including digital</li> </ul>



# Living Space

## Curriculum Connections: British Columbia



				<p>technologies, to systematically and accurately collect and record data</p> <ul style="list-style-type: none"> <li>Apply the concepts of accuracy and precision to experimental procedures and data</li> </ul>
			ACTION 1, 2	<p><b>Processing and analyzing data and information</b></p> <ul style="list-style-type: none"> <li>Seek and analyze patterns, trends, and connections in data, including describing relationships between variables, performing calculations, and identifying inconsistencies</li> <li>Construct, analyze, and interpret graphs, models, and/or diagrams</li> <li>Use knowledge of scientific concepts to draw conclusions that are consistent with evidence</li> <li>Analyze cause-and-effect relationships</li> </ul>
			ACTION 2	<p><b>Communicating</b></p> <ul style="list-style-type: none"> <li>Communicate scientific ideas and information, and perhaps a suggested course of action, for a specific purpose and audience, constructing evidence-based arguments and using appropriate scientific language, conventions, and representations</li> </ul>
			ACTION 2	<p><b>Applying and innovating</b></p> <ul style="list-style-type: none"> <li>Contribute to care for self, others, community, and world through individual or collaborative approaches</li> <li>Contribute to finding solutions to problems at a local and/or global level through inquiry</li> <li>Implement multiple strategies to solve problems in real-life, applied, and conceptual situations</li> </ul>
			ALL	<ul style="list-style-type: none"> <li>Scientific understanding enables humans to respond and adapt to changes locally and globally.</li> </ul>
			ALL	<ul style="list-style-type: none"> <li><b>Questioning and predicting</b></li> <li>Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal, local, or global interest</li> <li>Make observations aimed at identifying their own questions, including increasingly abstract ones, about the natural world</li> </ul>

